

## REMARKS

This amendment is in response to the Office Action mailed on January 22, 2004. Claims 1-24 remain in the application. Claims 1-4, 11, 16-17, 21 and 23-24 have been amended.

The invention of the present claims involves the manipulation of the hole area per unit area of screen in all or portions of a bushing screen, namely a central portion and end portions, the screen being spaced above a tip plate in a fiberizing bushing. The purpose of the manipulation of the hole area per unit area of screen is to address various problems, or needs including temperature profile of the tip or orifice plate and flexibility to manufacture different products without having to change the bushing, thus improving the usefulness and productivity of bushings.

When a melting tank such as the melting tank 2 shown in Figure 1, is being pulled hard, i.e. operated close to maximum capacity, the molten glass coming out of the tank into a channel 4 has a higher temperature than desired and also comes out of the channel 4 into the bushing legs 6, 8 hotter than desired, see Figure 1 and page 1 of the specification, the last sentence of the first full paragraph. As a result, the hottest glass dives into the orifices in the legs leading to the first bushing positions, the position closest to, next to the channel 4 causing the tip plate temperature profile in the bushing located in this position and causing the fiber break rate to increase, reducing productivity, see page 2, the first two full paragraphs. As pointed out in the last paragraph on page 9, "This hottest glass tends to dive into the first, and sometimes the second, (emphasis added) bushing positions 12 and 16 in the bushing legs." Thus, the channel positions are those positions which are affected by the hotter than desired glass coming out of the channel into the bushing legs, the position in each leg closest to the channel, and sometimes the second closest bushing position in the leg, the next closest position to the channel.

The Examiner rejected claims 1-24 under 35 USC 112, second paragraph as being indefinite for the following reasons.

Claim 1 for the use of "In a bushing", "said sidewall", "total area of the second screen", "the percentage of the hole area of said first screen" and "the total area of the first screen". Claim 1 has been amended to remove the term "In a" that the Examiner found indefinite. It is very clear that it is a bushing that is improved and that the improvement is a second screen lying on top of the first screen, the second screen being described. A second screen is structure and it is clear in claim 1, and the specification, that the bushing is being improved with the addition of a second screen. The other terms were said to lack antecedent basis and the claims have been amended to provide the type of antecedent basis that the Examiner seems to desire.

Claim 2 for substantially the same reasons as claim 1 and because in line 4 it is unclear what is mounted on an interior of the bushing. Claim 2 has been amended to address these reasons of rejection.

Claim 2 further and claim 11 because the Examiner urges that the terms "end portions" and "central portion" are indefinite based on the Board of Appeals decision earlier in the prosecution of this application. The Board of Appeals did not say that these terms were indefinite. The Examiner urges that because the Board of Appeals did not affirm the rejections under 35 USC 102 and 35 USC 103, that the Board of Appeals somehow supports the Examiner's current position. The Board of Appeals reversed those rejections because the Examiner had not presented the evidence needed to support the allegations of anticipation and obviousness, no more and no less. The Board of Appeals did not say that the Examiner could not arbitrarily designate various portions of the screen so that one end portion is smaller in area than another end portion, but instead said that the Examiner failed to identify a teaching in the prior art on which to support this condition or conclusion (arbitrary designation). In all statements about these rejections, the Board of Appeals held that insufficient evidence of prior art was the reason for the reversal. The Examiner admits that 35 USC 112 does not require an applicant to put specific dimensions into the claims. It is obvious to one of ordinary skill in the art that the areas of the "end portion" and the "mid or central portion" will vary as the size of the bushing changes. It is well known that different size bushings, i. e. different number of tips, are used to make different products and on different furnaces or bushing legs due to

the technology of that bushing leg. Improvements are being made every year, but furnaces, and bushing legs, are rebuilt and brought up to date typically every 5 years or more. Thus, applicant should not be required to specify the area of the end portions or the mid or central portions.

Applicant disagrees with the Examiner's insistence that Applicant urged that a portion at or near end of the screen is not an end portion. As the disclosure states in more than one place, such as the paragraph spanning pages 12 and 13 that in that example one end portion (50) of the inventive bushing screen can be of different dimensions than an opposite end portion (52) and an example is shown in Figure 6. The disclosure in the first full paragraph of page 4 describes the "end portions" as being on either side of the mid or central portion and Figure 6 and related text describes an end portion as being at or near an end of the screen. As to the "mid or center portion" such as 48 in the Figure 6 example, what is indefinite about this term. This portion of the screen contains the middle, the mid point, and the center of the bushing screen. What else would be reasonable to call this portion of the screen? The Examiner stated that he did not find anything in the specification to support this meaning. The dictionary, Funk and Wagnall's Standard Dictionary of the English Language defines "central" as "Of or pertaining to the center, situated at or near the middle --". Also, the drawings support the location of the terms. Applicant believes that the terms "end portion" and "mid or central portion" when used to describe the present invention and when read in the light of the disclosure meets the requirements of 35 USC 112, second

Claim 3 because there was no antecedent basis for "the major portion". This has been corrected with the amendment above.

Claim 16 because of the term "that" in line 8. This claim has been amended above to remove this term and to replace it with other changes that provide clear antecedent basis. Also, it is now stated that the at least some of the holes in the first screen have a diameter. Also, clear antecedent basis has been provided for the terms "molten glass" and "flow", both of which have been corrected by the amendments above to this claim.

Claim 21 because of the terms "operation" and "channel positions" – the first term is no longer in the claim, but some of the channel positions are defined with a different term, "first bushing position, next to the channel". Basis for this term and other changes to this

claim, and to claim 23, can be found on page 2, last full paragraph, Figure 1, on page 9, last paragraph and page 10, first paragraph. Applicant disagrees totally with the Examiner's arguments as to why the term "channel position" is indefinite, but is changing the way some of those positions are described to attempt to reduce the issues in this application.

Applicants defined "channel positions" in more than one manner including Figure 1 as including the first bushing position in each of legs 6,8,, the positions next to the channel 4, the positions that are always affected by a hot streaking condition in the molten material. The use of this term does not exclude using the solution of claim 21 in the second position of the bushing leg, the position next closest to the channel, when the hot streaking condition extends to that position in the leg. Regarding the Examiner's allegation that "one of ordinary skill would be at a complete loss as to whether his/her second position is also a channel position", this would not be the case because the specification makes it clear that if one is experiencing a hot streaking problem in the first, and even also the second position, in the leg that is causing a poor temperature profile on the tip plate of the bushing and excessive fiber breaks, and is using the bushing screen solution taught by Applicants, he/she would know that they were practicing Applicant's invention. An applicant is entitled to define terms used to describe the invention so long as the definition is not contrary to a well-accepted definition. Applicants believe that one skilled in the art would have no problem with the definition that a channel position is a first position, next to the channel, in each leg, and that the second position can also be affected by a hot streaking problem at high pull on the tank – the Examiner has presented no well-accepted contrary definition of "channel position".

Claim 24 because all of the claim was not on a separate page. This claim is now presented in full on a separate page of claims.

The Examiner urges that Applicants have refused to indicate what "end portion" means. This allegation lacks supporting evidence. The specification describes "end portion" as being on one side of the "central or mid portion", see the paragraph starting on page 12 and ending at the top of page 13 and the rest of the description of Figures 6, 6A and 6B on pages 13 and 14. The Examiner never rejected the claims as being indefinite because of these terms until after the Board of Appeals decision, and the Board of Appeals never mentioned these terms as being indefinite although they did mention



several other terms. The Examiner seems to say that prior to the Board of Appeals decision he agreed with Applicants' position on these terms, but believes that the Board of Appeals decision forces a different position. Applicants disagree and believe the Examiner is misinterpreting the reasons for decision.

The Examiner urges that the Board of Appeals determined that Stalago, 3,810,741, did not teach "end portions", but I don't find that stated in the Board of Appeal's decision in Appeal No. 2000-0035. The Board of Appeals held that it was not shown that the teaching of Stalago anticipated the invention described in claim 2 on appeal and that a prima facie case of obviousness under 35 USC 103 in view of the teaching of Stalago, had not been presented. Applicants have always described the terms "end portions" and center or mid portion" in a manner consistent with the way these terms are described in the specification. The Examiner seems to be misinterpreting the Board of Appeals decision and the reasons they stated for their decision as mentioned above.

Applicants believe that all of the claims meet the requirements of 35 USC 112 and respectfully request the Examiner to withdraw the rejection and to allow all of the claims. If the Examiner believes that further amendment is required, the Examiner is invited to call Applicants' attorney at 303-978-3927 to discuss for the purpose of expediting the disposal of this very old, 1997, application.

Respectfully submitted,

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